PANORAMA
Deployment Specification for Large-Scale Systems

Static deployment documentation tools
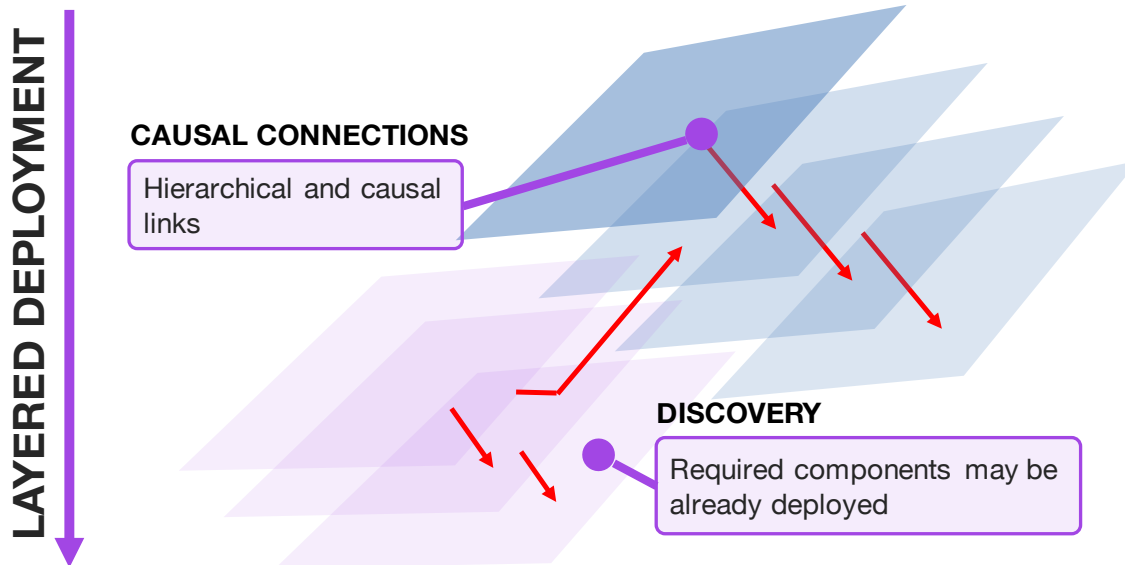

DESIGN & DEVELOPMENT → **PROVISION** → **INSTALL** → **ACTIVATE** → **UPDATE** → **ADAPT**

Same elements, different configuration

"Database engine"

"jMeter"
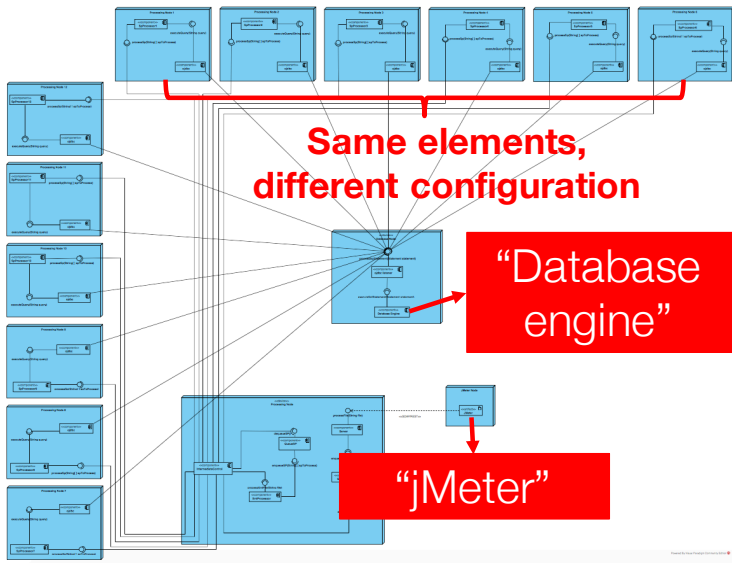
Deployment specification tools

- are intended for static documentation → usually outdated
- do not support deployment evolution

UML deployment diagram

- does not scale up well
- infrastructure provisioning, network configuration, elasticity?
- is full of illustrative elements

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PANORAMA: Deployment for Large-Scale Systems

LAYERED DEPLOYMENT

CAUSAL CONNECTIONS

Hierarchical and causal links

DISCOVERY

Required components may be already deployed

- Causally-connected models
- Different views: software, hardware, network
- Reuse of deployment specs and automation
- Collaboration among the actors involved
- Correspondence specifications-models-systems
- Standard mechanisms to continuous deployment

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Deployment specification challenges

CH1 Specification and visualization of deployments from different perspectives and levels of abstraction

CH2 Deployment notations to support cross-cutting concerns

CH3 Support for linking design and runtime deployment concepts

CH4 Evolution of deployment specs and runtime configuration mgmt

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